

Applicant's amendment dated September 24, 2008, has been fully considered.

Applicant argued the operating temperatures of the applied references are not above 400 degrees C. A new ground of rejection has been made based on a newly discovered reference from further searches.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3841099 (Somekh).

Somekh discloses a mixture of water-pyridine being used as working fluid for Rankine cycles. Note the abstract and the specification of Somekh on column 2, lines 62-68 and column 3, lines 1-14 for the heterocyclic aromatic compound including the 2-methyl pyridine which is similar to the mixture disclosed on paragraph 24 of this application. Figure 6 shows the necessitating operating temperatures about 800 degrees F to 1000 degrees F for steam only (note also column 2, lines 9-12). However, the mixture of water-pyridine shows in figures 10-11 are clearly higher than the T-s diagram of water only in figure 6 and therefore must have even higher operating temperatures.

Regarding new claims 12-13, note column 4, lines 41-43 for the low operating temperature about -10 to -40 degrees C.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3516248 (McEwen) in view of US 3841099 (Somekh).

McEwen discloses a Rankine cycle comprising heterocyclic aromatic compound. Regarding claims 4, 6-8, note the compound pyridide in tables I and II. Also, note the listing of fluid in columns 3-4 that meet the claimed limitations. McEwen does not teach the operating temperature higher than 400 degrees C. Somekh discloses a mixture of water-pyridine being used as working fluid for Rankine cycles. Note the abstract and the specification of Somekh on column 2, lines 62-68 and column 3, lines 1-14 for the heterocyclic aromatic compound including the 2-methyl pyridine which is similar to the mixture disclosed on paragraph 24 of this application. Figure 6 shows the necessitating operating temperatures about 800 degrees F to 1000 degrees F for steam only (note also column 2, lines 9-12). However, the mixture of water-pyridine shows in figures 10-11 are clearly higher than the T-s diagram of water only in figure 6 and therefore must have even higher operating temperatures; regarding new claims 12-13, note column 4,

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lines 41-43 for the low operating temperature about -10 to -40 degrees C. It would have been obvious to modify the pressure, temperature and mixture of the compound in McEwen to have the operating temperature higher than 400 degrees C as taught by Somekh for the purpose of producing appropriate power output.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ART UNIT 3748

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10/23/2008